

REMARKS

Claims 163-182 are pending in the Application.

Claims 163-182 are rejected.

Claim 181 is amended herein.

Claim 182 is cancelled without prejudice.

I. REJECTIONS UNDER 35 U.S.C. § 112, ¶ 2

Examiner has rejected Claims 163-180 under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner contends that “[i]t is not clear what is meant by ‘activating’ the catalyst.” Office Action at 2.

Applicant respectfully submits that ‘activating’ is not indefinite. The Applicant utilized this term in its ordinary and customary meaning that would be attributed to those words by persons skilled in the relevant art of the Application. When an Applicant uses a term in its ordinary and customary meaning, it is well settled that dictionaries can be utilized to provide such ordinary and customary meaning. *See, e.g., Inverness Medical Switzerland GmbH v. Princeton Biomeditech Corp.* 309 F.3d 1365, 64 U.S.P.Q.2d 1926 (Fed. Cir. 2002) (citing *Webster’s Dictionary* to determine the ordinary and customary meaning of the term “mobility”).

“Activating” is a well known term in catalyst preparation, such as to make a catalyst active for carrying out the reaction. *The New Lexicon Webster’s Dictionary of the English Language*, 1988 Edition, Lexicon Publications, Inc., New York, (“*Webster*”) defines “activate” in the chemical context as “to make particularly active, esp. by chemical reaction.” (*Webster’s* at p. 8, excerpts of which are attached hereto at Exhibit A).

The Application utilizes the term ‘activating’ consistent with this definition. For example, the Application states: “Optionally this entrained particle stream is subjected to a reduction step to further activate the catalyst (*e.g.*, heating from 300-500°C in H₂).” (Application

at page 44, line 30 to page 45, line 1) Additionally, Claims 163-180 recite elements that further delineate “activating” in consonance with the written description in the Application.

Therefore, as a result of the foregoing, Applicant respectfully requests that the Examiner withdraw his rejection of Claims 163-180, under 35 U.S.C. § 112, ¶ 2, as being indefinite.

II. REJECTIONS UNDER 35 U.S.C. § 102(a)

Examiner has rejected Claims 181 and 182 under 35 U.S.C. § 102(a) as being anticipated by Dai, *et al.*, “Single-wall Nanotubes Produced by Metal-Catalyzed Disproportionation of Carbon Monoxide,” Chemical Physics Letters 260 (1996) pp. 471-475 (“*Dai*”). Examiner contends that “*Dai* teaches SWNTs on a Mo catalyst. No differences are seen in the structure; viewing the material of Dai ‘upside down’ puts the catalyst under (and ‘supporting’) the nanotube.” Office Action at 2.

With regard to Claims 181 and 182, Claim 181 has been amended to require the claimed catalytic metal be a ~~Group VI metal~~ “selected from the group consisting of chromium (Cr) and tungsten (W).” *Dai* does not disclose such catalysts.

As to Claim 182, this Applicants have cancelled this claim without prejudice..

Therefore, as a result of the foregoing, Applicant respectfully requests that the Examiner withdraw his rejection of Claim 181 under 35 U.S.C. § 102(a) as being anticipated by *Dai*.

V. CONCLUSION

As a result of the foregoing, it is asserted by Applicant that the Claims in the Application are now in a condition for allowance, and respectfully request allowance of such Claims.

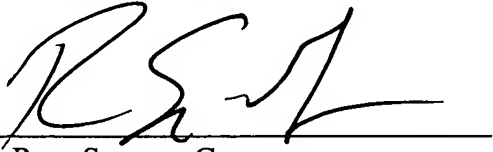
Applicant respectfully requests that the Examiner call Applicant’s attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

11321-P012USD12

PATENT

Respectfully submitted,

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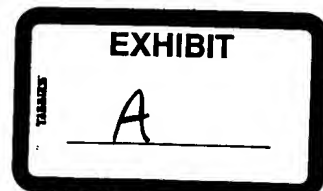
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pharmaceutical products etc. [fr. L. *acer* (*acris*), sharp + *olere*, to smell + *-in*]

acromegaly (ækromégali) *n.* (*med.*) a disease caused by excessive secretion of growth hormone from the pituitary gland in adult life, and manifested by headache and enlargement of the hands, feet and jaw [fr. Gk *akros*, extremity + *megale*, large]

acronym (ækronim) *n.* a name made up of the initial letters of an official title. e.g. UNESCO [fr. Gk *akros*, upper + *onoma*, name (modeled on 'homonym')]

acropetal (ækropítal) *adj.* (*bot.*) of leaves, flowers or roots developing successively from an axis so that the youngest arise at the apex [fr. Gk *akros*, peak + L. *petere*, to seek]

acropolis (ækropólis) *n.* a fortified citadel at a high point in a Greek city Acropolis the hill citadel of Athens, site of the Parthenon and Erechtheum [fr. Gk *akros*, highest + *polis*, city]

acrosin (ækraisin) *n.* (*biol.*) enzyme involved in breaking down proteins to penetrate protective layers of an ovum

across (ækrs,ækrs) 1. *adv.* crosswise, folded twice across || from side to side, they swam across twice || or on the other side, to go across by ferry 2. *prep.* on the other side of, the house across the street || from one side to the other side of, the cable goes across the river to come across to meet or find by chance || (*pop.*) to pay out money || (*pop.*) to give out information to get across (someone) (*Br., pop.*) to irritate (someone)

across-the-board (ækrsðæbórd, ækrðæbórd, ækrðæbórd) *adj.* (of a wager) covering the chances that the horse bet on will win, place or show || (of an industrial award etc.) having general application

acrostic (ækrostik, ækróstik) *n.* a composition, usually in verse, in which the initial, final or other prearranged letters in each line when taken together spell out a word [fr. L. *acrostichis* fr. Gk]

acroter (ækrtér) *n.* (*archit.*) a pedestal placed above the lower corners or apex of a pediment to receive a statue or other ornament [F. *acrotere* fr. L. fr. Gk]

acrylic (ækrlík) 1. *adj.* of or relating to acrylic acid, acrylic fiber or acrylic resin 2. *n.* acrylic resin || acrylic fiber [fr. *ACROLEIN*]

acrylic acid a colorless, corrosive liquid obtained by oxidation from acrolein

acrylic fiber any of various synthetic fibers obtained by polymerization of acrylonitrile

acrylic resin any of various thermoplastic resins obtained by the polymerization of the esters of amides of acrylic acid or methacrylic acid

acrylonitrile (ækrolounáitrl, ækrolounáitrl, ækrolounáitrl) *n.* a poisonous, colorless, flammable liquid, $\text{CH}_2=\text{CHCN}$, used in the polymerization of plastics, textile fibers etc.

ac-s-matic (æksimátik) (*acronym*) for Chief of Staff for Intelligence, computer language, storage-and-retrieval system used by the office

act (ækt) *n.* a deed || the doing of a deed, caught in the act || one of the main divisions of a play || a feature in a variety show, circus etc. || a law passed by a legislative body [F. *acte*]

act v.t. to perform (a play or a part in a play) || to play the part of, stop acting the fool || v.i. to behave in a certain way, to act wisely || to fulfil a particular function, to act as arbitrator || to intervene effectively, the police acted quickly to prevent his escape || to produce an effect, the acid acts on the metal to act for to represent with full authority [fr. L. *agere* (*actus*), to do]

Ac-tae-on (æktaion) (*Gk mythol.*) a hunter who surprised Artemis bathing. He was punished by being changed into a stag, and was killed by his own hounds

ACTH a pituitary hormone which stimulates the cortex of the suprarenal gland [ADRENOIC(ORTICOTROPIC)HORMONE]

acting (æktin) 1. *adj.* doing temporary duty for someone else, the acting mayor 2. *n.* the art of performing in plays or films || this as a profession

acting copy a copy of a play used by the actors showing cuts, producer's directions, cues etc.

actin-a (æktni:ə) *pl.* **actin-4-ae** (æktni:ə), **actin-4-as** *n.* a sea anemone [Mod. L. fr. Gk *aktis* (*aktinos*), a ray]

actinic (æktnik) *adj.* possessing photochemical properties [fr. Gk *aktis* (*aktinos*), a ray]

actinic rays electromagnetic radiations capable of producing photochemical changes and

including infrared, ultraviolet and X rays as well as visible light

actinide (æktnaid) *n.* a radioactive element with an atomic number in the series from 89-103

actinide series (æktnaid) a series of radioactive elements starting at actinium (at. no. 89) and continuing to uranium (92) and the transuranic elements. There are analogies with the lanthanum or rare-earth series (*PERIODIC TABLE) [fr. Mod. L. fr. Gk *aktin-*, ray]

actin-i-um (æktni:əm) *n.* a radioactive element (symbol Ac at no. 89 mass of isotope of longest known half-life 227). It occurs in uranium ores and can be manufactured from radium by transmutation in nuclear reactors [fr. Gk *aktis* (*aktinos*), a ray]

acti-nom-eter (æktnómítér) *n.* (*phys.*) instrument for measuring intensity of radiation by measuring the fluorescence produced by it

acti-no-mor-phic (æktnómórphik) *adj.* radially symmetrical (cf. *ZYGOMORPHIC*) [fr. Gk *aktis* (*aktinos*), ray + *morphe*, shape]

acti-no-my-cete (æktnómáisi:t, æktnómáisi:t) *n.* any of various aerobic or anaerobic bacteria of fam. *Actinomycetaceae*, some of which are pathogenic for men and animals [ult. fr. Gk *aktis* (*aktinos*), ray + *mukés*, fungus]

acti-non (æktnən) *n.* (*chem.*) an inert gaseous radioactive isotope of radon (symbol An, at. no. 86, half-life 3.92 secs) [fr. *ACTINIUM*]

acti-no-spec-to-cin (æktnínspektútsin) *n.* broad-spectrum antibiotic drug obtained from soil fungus, used in treating penicillin-resistant venereal diseases

ACTION (ækfan) an independent U.S. government agency that administers such voluntary programs as the Peace Corps, VISTA (Volunteers in Service to America), the Senior Companion Program, the Foster Grandparent Program, University Year for Action, and others. The Peace Corps, an autonomous agency within ACTION, was created in 1961 by Pres. Kennedy. Volunteers spend 2 years in a foreign country, working in agriculture, rural development, health, and education. VISTA is the domestic counterpart of the Peace Corps

ac-tion (ækfan) *n.* the process of doing, acting || something done, a deed || effective intervention, his prompt action prevented an accident || the working of one thing on another, the action of an acid on a metal || enterprise, deeds as compared with words, a man of action || the operating mechanism of a piano, typewriter, pump, gun etc. || a bodily movement performed repeatedly, leg action || the series of events in a play or novel, the action takes place in Europe || (*law*) a, proceeding in a court of law where someone seeks to enforce his rights || combat in war, killed in action || (*horol.*) the functioning of the escapement in the movement of a timepiece to take action to begin to be effective || (*pop.*) goings on, where the action is || to initiate practical measures ac-tion-a-ble *adj.* giving ground for an action at law ac-tion-a-ble *adv.* [F.]

action of trove *TROVER

action painting *ABSTRACT EXPRESSIONISM

Ac-ti-um (ækti:əm) promontory in N.W. Greece, near which the fleet of Octavian (*AUGUSTUS) won a decisive victory over the forces of Antony and Cleopatra in 31 B.C.

ac-ti-vate (ækti:veit) *pres. part.* **ac-ti-vating** *past and past part.* **ac-ti-vated** *v.t.* to make particularly active, esp. by chemical reaction

activated carbon carbon from which hydrocarbons have been removed to increase its powers of adsorption

activated sludge sewage aerated and used to hasten the decomposition of raw sewage by bacterial action

ac-ti-va-tion (ækti:veifən) *n.* the act or process of activating

activation analysis 1. (*nuclear phys.*) technique for identifying and measuring chemical elements by measuring radiation emitted after exposure to radioactivity 2. (*neutron*) ACTIVATION ANALYSIS 2. (*electr.*) treatment of an electron tube to increase emissions. 3. (*automotive*) addition of water to a battery to make it active

ac-ti-va-tor (ækti:veitér) *n.* a substance which activates

ac-tive (ækti:v) *adj.* busy, energetic, active in local politics || (of a volcano) erupting from time to time || (*commerce*) productive, bearing interest, active assets || (*gram.*) descriptive of a voice or form of the verb which shows the subject as per-

former of the action of the verb (cf. *PASSIVE*) || in or of the active voice [F. *actif*]

active duty the full-time service of members of the armed forces who are not reserves and not retired

active homing (*mil.*) homing device in a missile with capability of receiving energy reflected from a target and illuminating the target

active homing guidance (*mil.*) a system of homing guidance in which both the source for illuminating the target and the receiver for detecting the energy reflected from the target as the result of illuminating the target are carried within the missile

active list a roll of service officers available for active service

active mass the concentration (usually expressed in moles per liter) of a reacting substance

active material (*nuclear phys.*) material capable of supporting a fission chain reaction, e.g., plutonium, and certain isotopes of uranium

active service active duty

active transport (*chem.*) movement of a substance across a membrane in a nonnormal direction, e.g., from a low concentration to a higher concentration

act-i-ism (ækti:vizəm) *n.* a theory that calls for militant propaganda action by individuals or the practice (esp. political) of such action

act-i-ivist (ækti:vist) *n.* someone who takes militant action in the service of a party or doctrine

act-i-ty (ækti:viti) *pl.* **act-i-ty** *n.* the state of being active || capacity for being active || (*chem.*) readiness of a substance to undergo chemical change, depending on the degree of instability of its atomic or molecular structure || the apparent or thermodynamic concentration of a substance || (*pl.*) ways in which people use their energies, social and cultural activities [F. *activité*]

activity ratio (*computer*) fraction of stored records that are processed or updated

act of God (*law*) an accident or catastrophe due to natural causes (e.g. an earthquake, hurricane) which could not be controlled

Act of Settlement *SETTLEMENT, ACT OF

Act of Supremacy *SUPREMACY, ACT OF

Act of Union *UNION, ACT OF

Acton (ækton), John Emerich Edward Dalberg, 1st Baron Acton (1834-1902), British historian. His posthumously published works include 'Lectures on Modern History' and 'Lectures on the French Revolution'

ac-tor (æk-tór) *n.* a man who performs a part in a play or film [L. = *doer*]

actress (æktris) *n.* a woman actor

Acts of the Apostles the fifth book in the New Testament. It is variously dated from 62 A.D. to the end of the 1st c. Its authorship is ascribed to St. Luke. Together with his gospel it tells the story of the Christian movement from its humble origins in Galilee to its establishment in Rome as a universal Church

ac-tual (æktsju:əl) *adj.* existing as a fact of experience, real as opposed to potential [F. *actuel*]

actual ground zero the point on the surface of the earth at, or vertically below, or above, the center of an actual nuclear detonation. abbr AGZ

ac-tu-al-ity (æktsju:əli:ti) *pl.* **ac-tu-al-ities** *n.* reality || (*pl.*) realities, things having existence [fr. M.L. *actualitas* (*actualitatis*)]

ac-tu-al-i-za-tion (æktsju:əlaizəfən) *n.* the act or process of actualizing

ac-tu-al-ize (æktsju:əlaiz) *pres. part.* **ac-tu-al-izing** *past and past part.* **ac-tu-al-ized** *v.t.* to make actual || v.i. to become actual

ac-tu-al-ly (æktsju:əli:) *adv.* in fact, really, he pretended to be deaf but actually he was not || strange as it may seem, he actually sells those terrible paintings || at this moment, the government actually in office

ac-tu-ri-al (æktsju:əri:əl) *adj.* of an actuary or his activity

ac-tu-ary (æktsju:əri:) *pl.* **ac-tu-aries** *n.* a statistician who estimates risks and probabilities, particularly in insurance, lotteries etc. [fr. L. *actuarius*, clerk]

ac-tu-ate (æktsju:eit) *pres. part.* **ac-tu-ating** *past and past part.* **ac-tu-ated** *v.t.* to put into action or motion, this switch actuates the mechanism || to motivate the actions of (a person), actuated by envy ac-tu-a-tion *n.* [fr. M.L. *actuare* (*actuatus*)]

ac-ut-ly (ækju:iti:) *n.* shrewdness, acuteness of perception [F. *acuité*]

CONCISE PRONUNCIATION KEY: (a) æ, cat; (ā) car, 3 lawn; (e) e, hen; (i) i, sheep; (is) deer; (o) o, ox; (u) u, duck; (ou) oo, goat; (u) u, poor; (i) i, royal. (u) u, bull; (u) u, goose; a, bacillus; ju, cube. x, lock; θ, think; ð, brother; z, Zen; 3, corsage; d3, savage; ŋ, orangutang; j, yak; f, fish; tʃ, fetch; ʎ, rabble; ˈn, redder. Complete pronunciation key appears inside front cover.